<u>WHAT IS CLAIMED IS</u>:

1. A recording medium comprising an alumina hydrate having an average pore radius of 20 to 200 Å and a half breadth of pore radius distribution of 20 to 150 Å.

2. A recording medium comprising a base material and an ink-receiving layer which comprises a pigment and a binder and is provided on the base material, wherein the pigment is an alumina hydrate and the ink-receiving layer has an average pore radius of 20 to 200 Å and a half breadth of pore radius distribution of 20 to 150 Å.

3. A recording medium comprising principally pulp fibers and a filler, wherein the filler comprises an alumina hydrate having an average pore radius of 20 to 200 Å and a half breadth of pore radius distribution of 20 to 150 Å.

4. A recording medium comprising an alumina hydrate having at least two peaks in pore radius distribution.

5. A recording medium comprising a base material and an ink-receiving layer which comprises a pigment and a binder and is provided on the base material, wherein the pigment comprises an alumina hydrate and the ink-receiving layer has at least two peaks in pore radius distribution.

6. A recording medium comprising principally pulp fibers and a filler, wherein the filler comprises an alumina hydrate having at least two peaks in pore radius distribution.

7. The recording medium according to Claim 4 or 6, wherein the peaks in pore radius distribution of the alumina hydrate are located at smaller than 100 Å and within a range of from 100 to 200 Å.

8. The recording medium according to Claim 5, wherein the peaks in pore radius distribution of the ink-receiving layer are located at smaller than 100 Å and within a range of from 100 to 200 Å.

9. The recording medium according to Claim 7, wherein the pore volume of pores having the peak at a pore radius of smaller than 100 Å in the alumina hydrate is within a range of from 0.1 to 10 % by volume based on the total pore volume.

10. The recording medium according to Claim 8, wherein the pore volume of pores having the peak at a pore radius of smaller than 100 Å in the ink-receiving layer is within a range of from 0.1 to 10 % by volume based on the

total pore volume.

11. A recording medium comprising an alumina hydrate containing 0.01 to 1.00 % by weight of titanium dioxide.

12. A recording medium comprising a base material and an ink-receiving layer which comprises an alumina hydrate containing 0.01 to 1.00 % by weight of titanium dioxide and is provided on the base material.

13. A recording medium comprising principally pulp fibers and a filler, wherein the filler comprises an alumina hydrate containing 0.01 to 1.00 % by weight of titanium dioxide.

14. The recording medium according to Claim 11 or 13, wherein the alumina hydrate has an average pore radius of 20 to 200 Å and a half breadth of pore radius distribution of 20 to 150 Å.

15. The recording medium according to Claim 12, wherein the ink-receiving layer has an average pore radius of 20 to 200 Å and a half breadth of pore radius distribution of 20 to 150 Å.

16. The recording medium according to Claim 11 or

13, wherein the alumina hydrate has at least two peaks in pore radium distribution.

17. The recording medium according to Claim 12, wherein the ink-receiving layer has at least two peaks in pore radium distribution.

18. The recording medium according to Claim 16, wherein the peaks in pore radius distribution of the alumina hydrate are located at smaller than 100 Å and within a range of from 100 to 200 Å.

19. The recording medium according to Claim 17, wherein the peaks in pore radius distribution of the ink-receiving layer are located at smaller than 100 Å and within a range of from 100 to 200 Å.

20. The recording medium according to Claim 18, wherein the pore volume of pores having the peak at a pore radius smaller than 100 Å in the alumina hydrate is within a range of from 0.1 to 10 % by volume based on the total pore volume.

21. The recording medium according to Claim 19, wherein the pore volume of pores having the peak at a pore radius of smaller than 100 Å in the ink-receiving layer

is within a range of from 0.1 to 10 % by volume based on the total pore volume.

22. The recording medium according to any one of Claims 1 to 3, 4 to 6 and 11 to 13, wherein the pore volume of the alumina hydrate is within a range of from 0.4 to 0.6 cc/g.

23. The recording medium according to any one of Claims 2, 5 and 12, wherein the pore volume of the ink-receiving layer is within a range of from 0.4 to 0.6 cc/g.

24. The recording medium according to any one of Claims 2, 5 and 12, wherein the total pore volume of the ink-receiving layer is at least 8 cc/m^2.

25. The recording medium according to any one of Claims 1 to 3, 4 to 6 and 11 to 13, wherein a relative pressure difference (ΔP) between adsorption and desorption at 90 percent of the maximum amount of adsorbed gas as found from an isothermal nitrogen adsorption and desorption curve for the alumina hydrate is not larger than 0.2.

26. The recording medium according to any one of Claims 2, 5 and 12, wherein a relative pressure difference

(ΔP) between adsorption and desorption at 90 percent of the maximum amount of adsorbed gas as found from an isothermal nitrogen adsorption and desorption curve for the ink-receiving layer is not larger than 0.2.

27. The recording medium according to any one of Claims 1 to 3, 4 to 6 and 11 to 13, wherein the alumina hydrate is non-crystalline.

28. The recording medium according to Claim 27, wherein the alumina hydrate is in the form of a flat plate having an average aspect ratio of 3 to 10.

29. The recording medium according to Claim 28, wherein the alumina hydrate has a BET specific surface area of 70 to 300 m^2/g.

30. The recording medium according to Claim 28, wherein the alumina hydrate has an average slenderness ratio of 0.6 to 1.0.

31. The recording medium according to any one of Claims 1 to 3, 4 to 6 and 11 to 13, wherein the number of hydroxyl groups in the alumina hydrate is at least 10^{20} groups/g.

32. The recording medium according to any one of Claims 1 to 3, 4 to 6 and 11 to 13, wherein the alumina hydrate has a zeta-potential of at least 15 mV at pH 6.

33. An ink-jet recording method comprising ejecting minute droplets of an ink from an orifice to apply the droplets to a recording medium, thereby conducting printing, wherein the recording medium according to any one of Claims 1 to 3, 4 to 6 and 11 to 13 is used as the recording medium.

34. The ink-jet recording method according to Claim 33, wherein the minute droplets of the ink is formed by applying thermal energy to the ink.

35. A dispersion of an alumina hydrate, which is obtained by dispersing an alumina hydrate containing 0.1 to 1.0 % by weight of a nitrate anion and having an average pore radius of 20 to 200 Å and a half breadth of pore radius distribution of 20 to 150 Å in deionized water, wherein the dispersion having a solids concentration of 15 % by weight has a viscosity of not higher than 75 cP as measured at 20°C and a shear rate of 7.9 sec^{-1}.

36. The alumina hydrate dispersion according to

Claim 35, wherein the dispersion has a viscosity of not higher than 100 cP as measured at 20°C and a shear rate of 10.2 sec^{-1} when the alumina hydrate is dispersed at a solids concentration of 20 % by weight.

37. The alumina hydrate dispersion according to Claim 36, wherein the dispersion has a viscosity of not higher than 500 cP as measured at 20°C and a shear rate of 10.2 sec^{-1} when the alumina hydrate is dispersed at a solids concentration of 25 % by weight.

38. A dispersion of an alumina hydrate, which is obtained by dispersing an alumina hydrate containing 0.1 to 1.0 % by weight of a nitrate anion and having at least two peaks in pore radius distribution in deionized water, wherein the dispersion having a solids concentration of 15 % by weight has a viscosity of not higher than 75 cP as measured at 20°C and a shear rate of 7.9 sec^{-1}.

39. The alumina hydrate dispersion according to Claim 38, wherein the dispersion has a viscosity of not higher than 100 cP as measured at 20°C and a shear rate of 10.2 sec^{-1} when the alumina hydrate is dispersed at a solids concentration of 20 % by weight.

40. The alumina hydrate dispersion according to

Claim 39, wherein the dispersion has a viscosity of not higher than 500 cP as measured at 20°C and a shear rate of 10.2 sec^{-1} when the alumina hydrate is dispersed at a solids concentration of 25 % by weight.

41. A dispersion of an alumina hydrate, which is obtained by dispersing a titanium dioxide-containing alumina hydrate containing 0.1 to 1.0 % by weight of a nitrate anion in deionized water, wherein the dispersion having a solids concentration of 15 % by weight has a viscosity of not higher than 75 cP as measured at 20°C and a shear rate of 7.9 sec^{-1}.

42. The alumina hydrate dispersion according to Claim 41, wherein the dispersion has a viscosity of not higher than 100 cP as measured at 20°C and a shear rate of 10.2 sec^{-1} when the alumina hydrate is dispersed at a solids concentration of 20 % by weight.

43. The alumina hydrate dispersion according to Claim 42, wherein the dispersion has a viscosity of not higher than 500 cP as measured at 20°C and a shear rate of 10.2 sec^{-1} when the alumina hydrate is dispersed at a solids concentration of 25 % by weight.